

Title (en)

INPUT/OUTPUT PROCESSING IN A DISTRIBUTED STORAGE NODE WITH RDMA

Title (de)

EINGABE-/ AUSGABEVERARBEITUNG IN EINEM VERTEILTEN SPEICHERKNOTEN MIT RDMA

Title (fr)

TRAITEMENT D'ENTRÉE/SORTIE DANS UN NOEUD DE STOCKAGE DISTRIBUÉ AVEC UN RDMA

Publication

EP 3900308 A4 20220223 (EN)

Application

EP 19912451 A 20190422

Priority

- US 201962798890 P 20190130
- CN 2019083584 W 20190422

Abstract (en)

[origin: WO2020155417A1] A computer- implemented method for remote direct memory access (RDMA) by a distributed storage node includes receiving a request for an input/output (I/O) process associated with data. In response to the request, a memory segment shared between the operating system and a user process is allocated using an operating system driver of the node. The user process includes an I/O stack for processing the request. The shared memory segment includes a context memory portion storing context information associated with the I/O stack, a header memory portion storing header information for the I/O process, and a data memory portion for storing the data. The shared memory segment is registered for RDMA access with a target storage node. An RDMA transfer is performed between the shared memory segment and the target node to complete the I/O process. The shared memory segment is deallocated upon completion of the RDMA transfer.

IPC 8 full level

G06F 3/06 (2006.01); **H04L 67/1097** (2022.01)

CPC (source: EP US)

G06F 3/0604 (2013.01 - US); **G06F 3/0613** (2013.01 - EP US); **G06F 3/0631** (2013.01 - US); **G06F 3/064** (2013.01 - EP US); **G06F 3/0656** (2013.01 - EP); **G06F 3/0659** (2013.01 - EP US); **G06F 3/067** (2013.01 - EP US); **H04L 67/1097** (2013.01 - EP)

Citation (search report)

See references of WO 2020155417A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020155417 A1 20200806; CN 113287286 A 20210820; CN 113287286 B 20221227; EP 3900308 A1 20211027; EP 3900308 A4 20220223; US 11681441 B2 20230620; US 2021342071 A1 20211104

DOCDB simple family (application)

CN 2019083584 W 20190422; CN 201980088335 A 20190422; EP 19912451 A 20190422; US 202117305752 A 20210714